

Figure 1

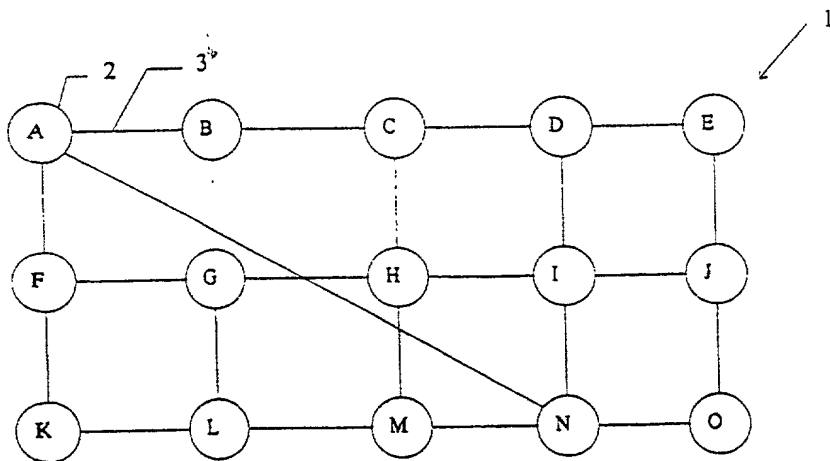


Figure 2

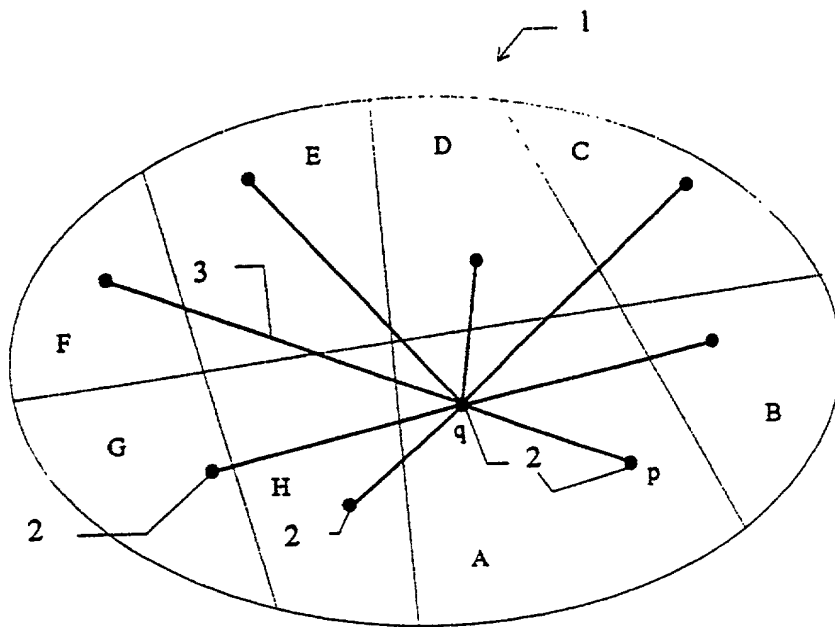


Figure 3

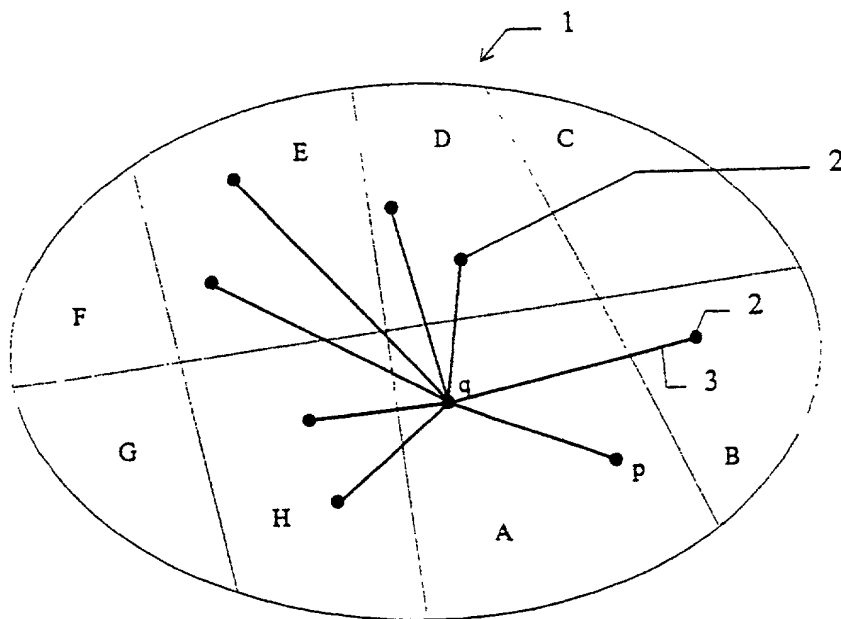


Figure 4

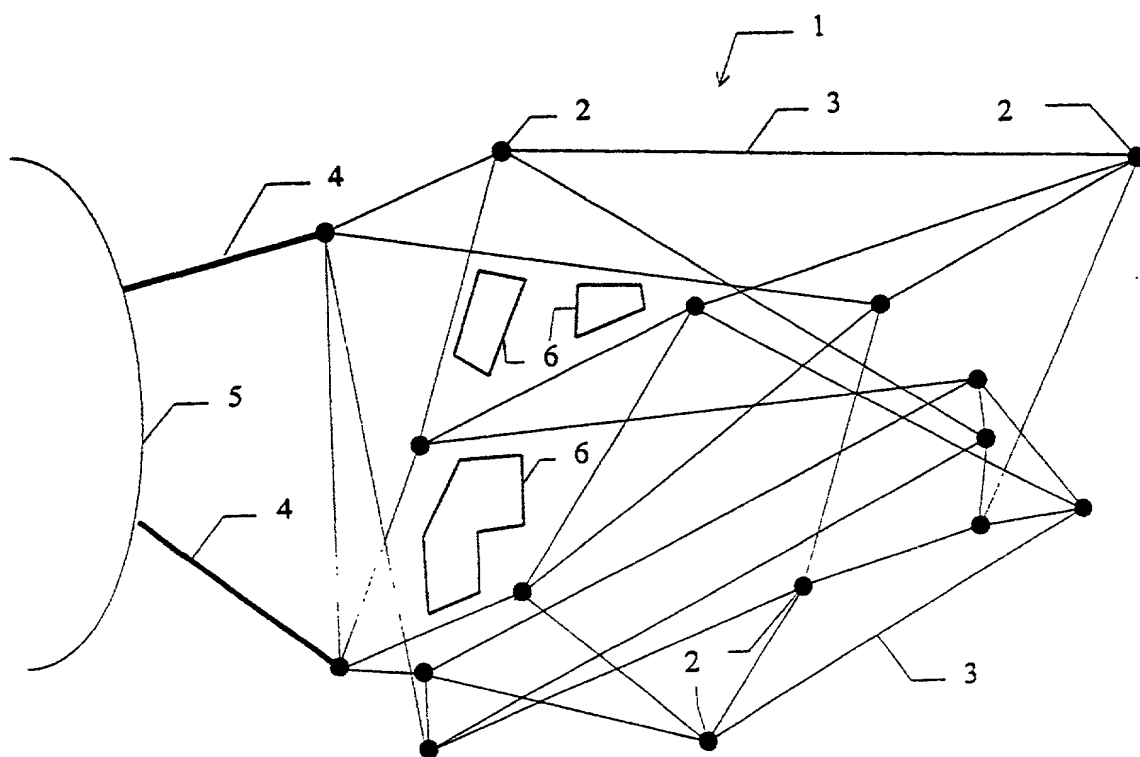


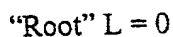
Figure 5



3



2



2



3

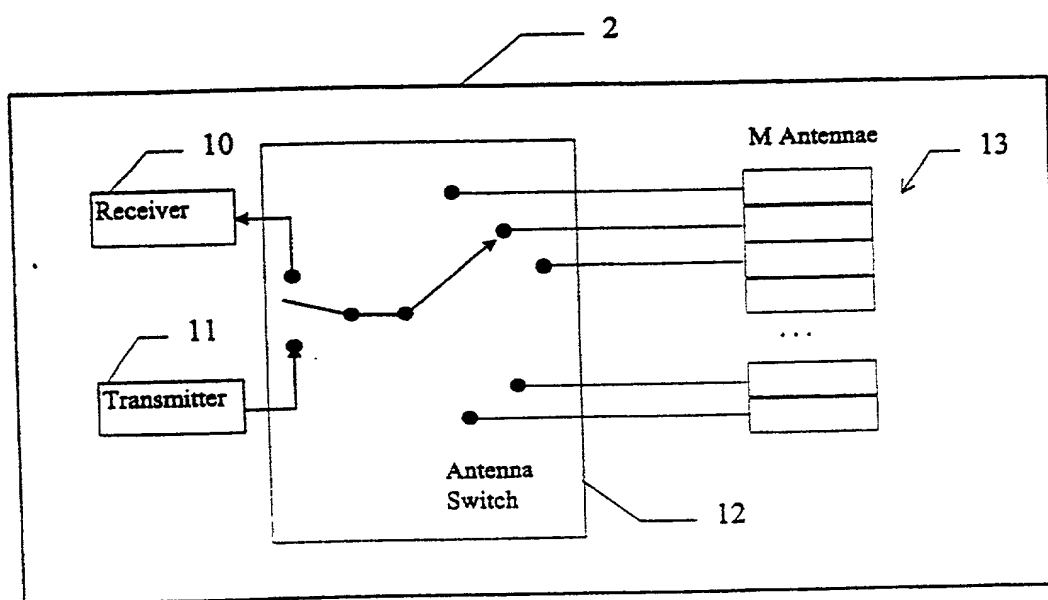


Figure 10

09545-0001

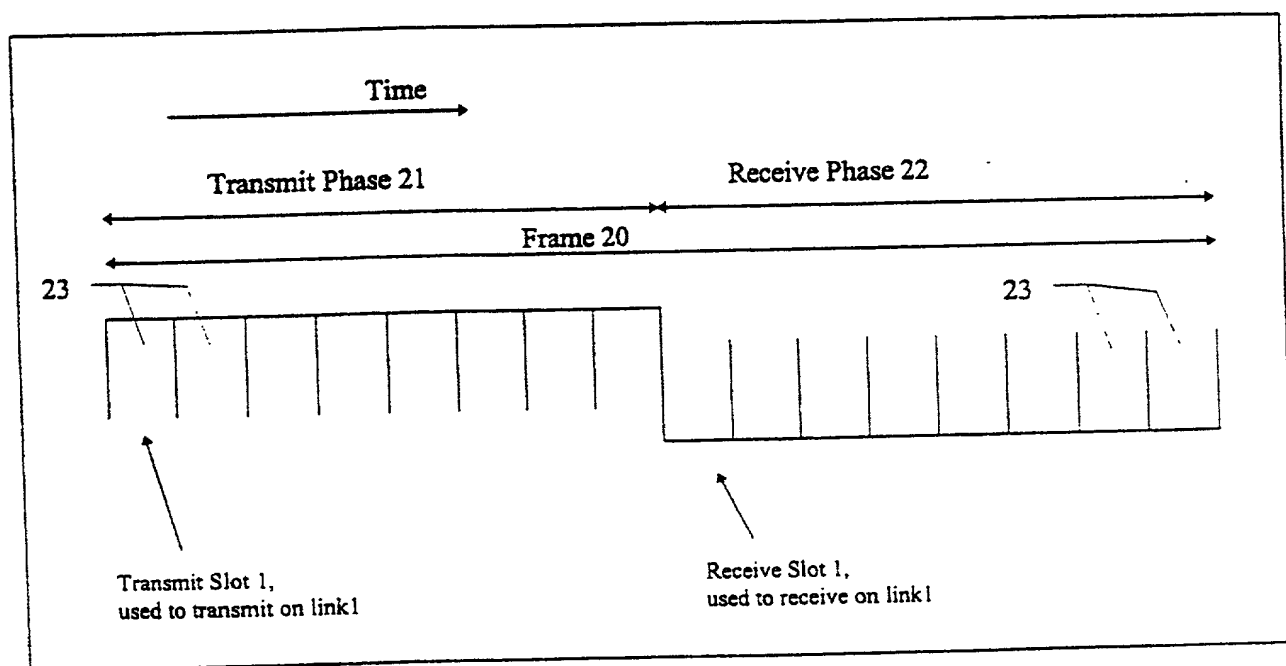


Figure 11

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Figure 12A

	A0	A1	A2	A3	A4	A5	A6	A7
T0	1	-	-	-	-	-	-	-
T1	-	1	-	-	-	-	-	-
T2	-	-	1	-	-	-	-	-
T3	-	-	-	1	-	-	-	-
T4	-	-	-	-	1	-	-	-
T5	-	-	-	-	-	1	-	-
T6	-	-	-	-	-	-	1	-
T7	-	-	-	-	-	-	-	1

Figure 12B

	A0	A1	A2	A3	A4	A5	A6	A7
T0	1	-	-	-	-	-	-	-
T1	1	-	-	-	-	-	-	-
T2	-	1	-	-	-	-	-	-
T3	-	-	1	-	-	-	-	-
T4	-	-	-	-	1	-	-	-
T5	-	-	-	-	1	-	-	-
T6	-	-	-	-	1	-	-	-
T7	-	-	-	-	-	-	-	1

Figure 12C

	A0	A1	A2	A3	A4	A5	A6	A7
T0	-	-	-	-	1	-	-	-
T1	-	-	-	-	1	-	-	-
T2	-	-	-	-	1	-	-	-
T3	-	-	-	-	1	-	-	-
T4	-	-	-	-	1	-	-	-
T5	-	-	-	-	1	-	-	-
T6	-	-	-	-	1	-	-	-
T7	-	-	-	-	1	-	-	-

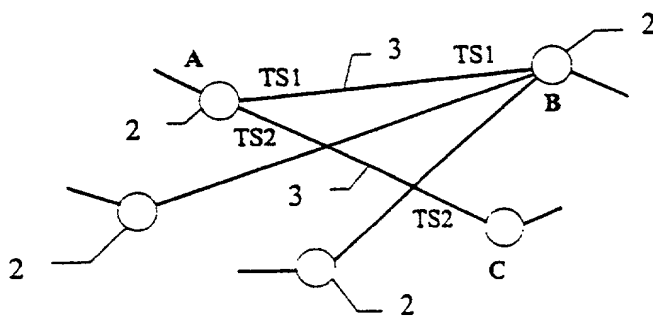


Figure 13

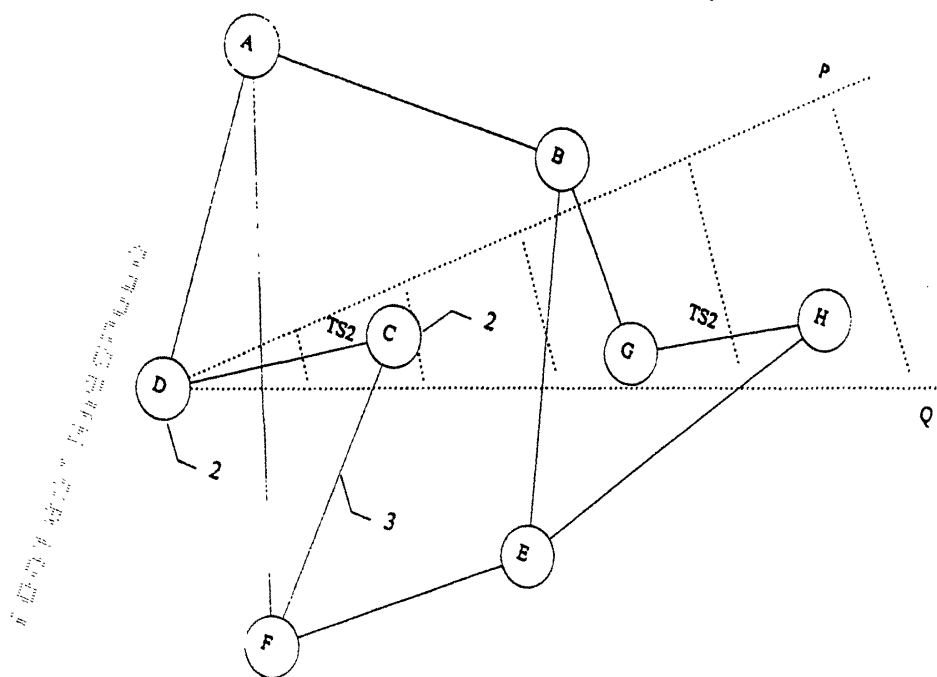


Figure 14

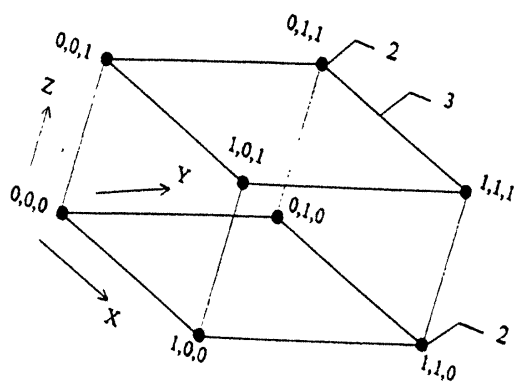


Figure 15

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Begin RoutePacket ()

Define L of type Address;

Define next_channel, input_channel of type Channel;

Define msg of type Message;

Import messageQueue of type Queue;

forever

if length of (messageQueue) > 0 then

 dequeueMessage (messageQueue, (msg, input_channel));

 if msg.status = Returned then

 -- this message has been returned.

 handleReturnedMessage (msg, input_channel);

 else

 -- Pass message on to next node.

 set L := msg.L

 if L = my_L then

 -- Packet has arrived - terminates here.

 ProcessCell (msg.cell);

 else

 set next_channel := decideNextChannel (L, my_L);

 if next_channel = NoBestChannel then

 set msg.status := Returned;

 set next_channel := input_channel;

 end if

 SendPacketToChannel (msg, next_channel);

 end if

 end if

end if

end

end RoutePacket.

Figure 16

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Begin decideNextChannel (Address L, Address my_L) of type Channel

```

define hop of type Address;
define weightedChannelSum, sum, weightedChannel of type Real Number;
define bestChannel of type Channel;
define j, unuseableChannels of type Integer;

set hop := L - my_L;
set weightedChannelSum := 0.0;
set sum := 0.0;

for j := 0 to Length of(hop)
{
  if ChannelUtilisation (j) > MaximumChannelUtilisation then
    set unuseableChannels := unuseableChannels + 1;
  end if
  set weightedChannelSum := weightedChannelSum + hop[j] * j / ChannelUtilisation (j);
  set sum := sum + hop [j] / ChannelUtilisation [j];
}

if unuseableChannels = ActiveChannels then
  -- message cannot be forwarded from this node must be handed back to sender.
  return NoBestChannel;
end if
set weightedChannel := weightedChannelSum / sum;
set bestChannel := MapWeightedChannelToBestChannel (weightedChannel);

return bestChannel;
end decideNextChannel

```

Figure 17

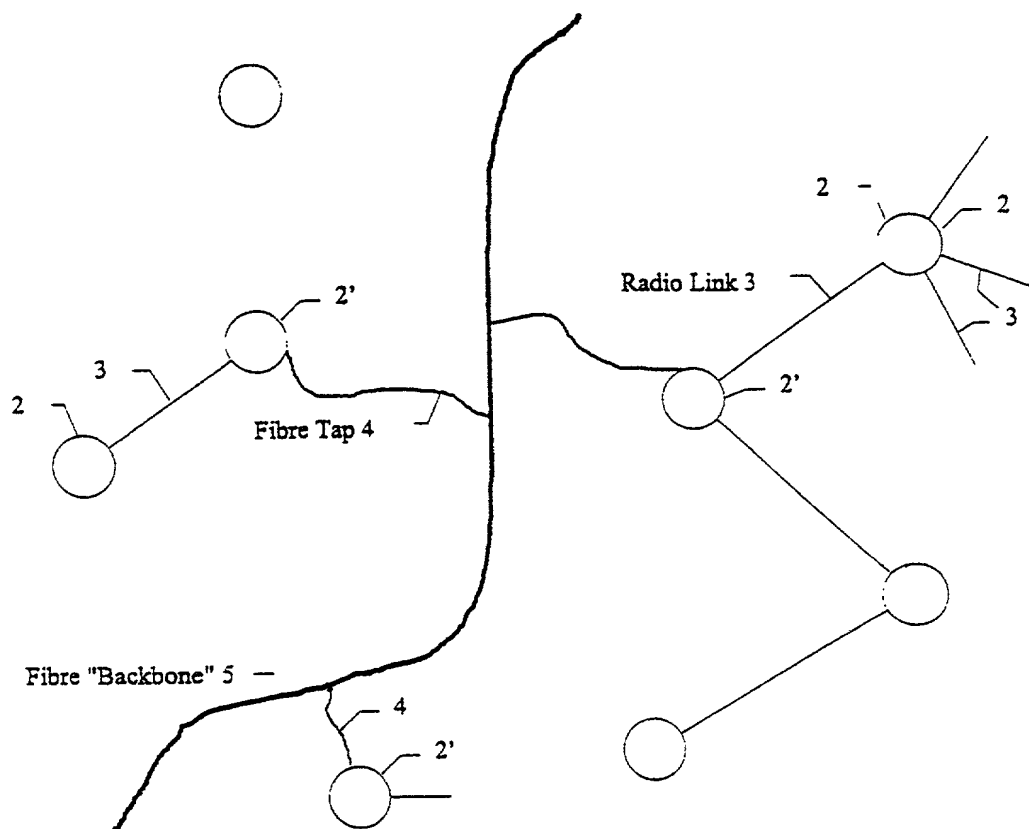


Figure 18

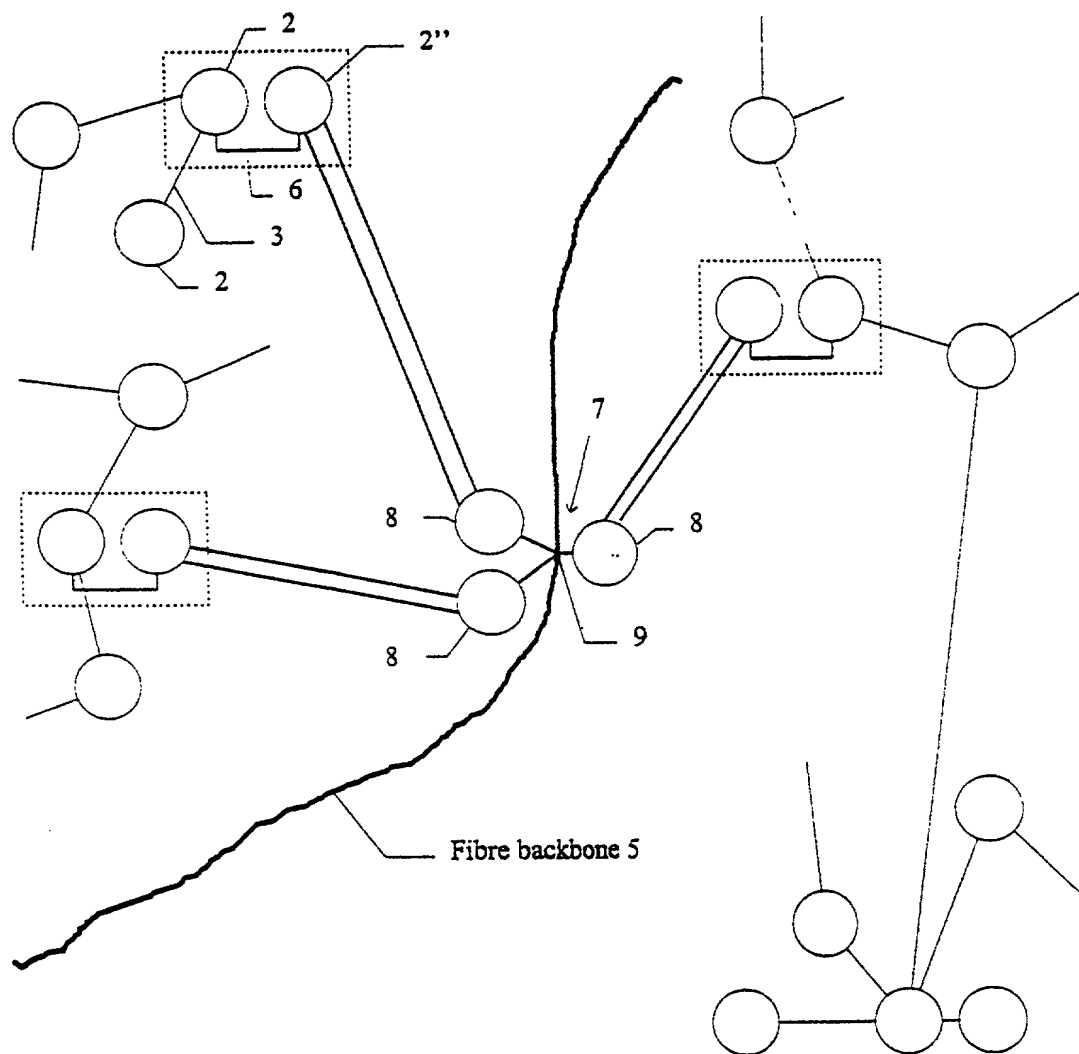


Figure 19